89339

S/534/60/000/19/003/005
Preliminary results of the work ... S/534/60/000/19/003/005

peat formation in the "Yuzhnoye Boloto" and in the state of subsoil permanent freezing; 5) Studying the general ecology of the area; 6) Studying in detail all the material collected. The authors feel, therefore, that it is necessary to organize a new expedition, comprising specialists of many kinds, and that it is important to do it as soon as possible for the traces of the meteorite impact are already fading. There are 27 figures, 1 table and 15 references: 13 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: F. Whipple. "The Great Siberian Meteor and the Waves, Seismic and Aerial which it Produced." Journ. of the Roy. Meteorological Soc., 56, no. 236, 1930.

Card 13/13

S/007/62/000/002/001/001 B107/B101

AUTHOR:

Florenskiy, K. P.

TITLE:

News in the study of the Tungusskiy metecrite of 1908

PERIODICAL: Geokhimiya, no. 2, 1962, 187 - 189

TEXT: A meeting of the united Uchenyy sovet Instituta geokhimii i analiticheskoy khimii im. V. I. Vernadskogo i Komiteta po meteoritam AN SSSR (Scientific Council of the Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy and Committee for Meteorites AS USSR) took place on November 13, 1961. K. P. Florenskiy, leader of the expedition, gave a preliminary report on the work done by the Tungusskaya meteoritnaya kompleksnaya ekspeditsiya AN SSSR (Tunguska Fiver Meteorite Comprehensive Expedition AS USSR) in 1961. A short survey is given on previous researches carried out by L. A. Kulik, K. P. Florenskiy (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy AS USSR), O. A. Kirova, Ye. L. Krinov, and A. A. Yavnel', and on the theories by M. A. Tsikulin, K. P. Stanyukovich, V. P. Shalimov, V. A. Bronshten, V. G. Fesenkov, Academician, I. S. Astapovich, and V. I.

Card 1/1 (/

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News in the study of the...

S/007/62/000/002/001/001 B107/B101

Vernadskiy, Academician. On a request by the Prezidium AM SSSR (Presidium of the AS USSR), the KMET and the GYeOKhI AN SSSR equipped a comprehensive expedition in 1961 to continue the research work. A number of institutes and organizations took part: Pochvennyy in-t. MGU (Soil Science Institute of the MGU), Glavn. Botanicheskiy sad (Main Botanical Garden), In-t lesa i drevesiny (Forest and Wood Pulp Institute), Lesproyekt, Ashkhabadskaya astrofizicheskaya observatoriya (Ashkhabad Astrophysical Observatory), and others. The expedition improved the maps of the destruction area (2000 km<sup>2</sup>). The oriented damages of cambium due to light effects were found at a distance of only 7 - 9 km from the epicenter; they only occur on twigs which, in 1908, had a thickness of below 15 - 20 cm and a sufficiently thin bark. The kind of brands indicates that the energy was hardly more than 5 - 12 cal/cm2. Measurements of C14 and 3r90/Ce144 showed that nuclear processes must be excluded from the explosion of the Tungusskiy meteorite. A rule governing the distribution of meteoric dust has been found after all (Fig.). "Indicator substance" were globular particles, 0.02 - 0.15 mm in diameter, of silicate or magnetite. Mainly magnetite balls were investigated. The cosmic origin is guaranteed by the high nickel content: the Ni/Fe ratio is approximately 1:10 according to the microchemical determination by P. N. Paley. The Card 2/1/1

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S/007/62/000/002/301/001 B107/B101

News in the study of the ...

concentration of cosmic dust rises noticeably with the distance from the epicenter. High concentrations are found north of the epicenter except for Vanavara where an industrial origin is assumed since Ni/Fe is only about 1:25. The high concentrations northwest of the epicenter are explained by a rise of the lower edge of the explosion cloud up to 8 - 12 km, and a two-hour fall of particles, 0.15 mm in diameter. According to data of the Institut prognozov (Institute of Weather Forecast), southerly and southeasterly winds with 30 - 40 km/hr were blowing at the time of fall. Therefore, it is highly probable that the particles studied originated from the meteor fall of 1908. Their composition is now being examined at the CYeOKhI. The Tunguska River meteorite was assumed to be the head of a comet. The united Scientific Council approved the work carried out, and pointed out that it should be continued. There are 1 figure and 1 table.

SUBMITTED: December 7, 1961

Table. Mean concentration of magnetite balls at different distances from the epicenter.

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News in the study of the...  $\frac{5/007/62/000/002/001/001}{B107/B101}$ 

Distance, km	Mean content		
A N. S. of Printed and Associated	Number of particles	Average from a samples	
0 - 10	1 = 5	6	
20 - 30	4	16	
about 40	8	11	
60 - 80	21	6	

Fig. Graph of the effect of the Tunguska River meteorite 1908 and distribution of meteor particles in soil.

Legend: (1) Probable radius of physiological brands on trees due to light (r = 7 + 9 km); (2) area of destroyed woodland; (3) site of richest samples (the area of circle is proportional to the concentration of particles); (4) poor samples; (5) meteorite trajectory according to Ye. L. Krinov; (6) wind direction according to data of the Institute of Weather Forecasts; (a) Mutoray; (b) Chunya river; (c) Strelka; (d) Podkamennaya Tunguska river; (e) Vanavara; (f) wind; (g) trajectory; (h) meteor fragment carried off by wind; (1) assumed scattering ellipse of the meteorite.

Card 4/0 (

S/026/62/000/008/003/005 D050/D113

AUTHORS.

Florenskiy, K.P., Candidate of Geological and Mineralogical Sciences,

and Zotkin, I.T.

TITLE:

New explorations, new results

PERIODICAL: Priroda, no. 8, 1962, 31-39

TEXT: The article deals with detailed field investigations conducted by various groups and organizations including the AS USSR in 1958 and 1961 and its Siberian Department, to disclose the nature of the Tungus phenomenon. The following results were obtained: A crater caused by a meteorite fall could not be found; no proof could be obtained that the explosive wave was spherical - a characteristic of a localized central explosion; the forest fires were caused by a flash burn; no meteoric matter could be found except for small amounts contained in magnetite and silicate beads which did not appear to be of cosmic origin. Thus, the described investigations confirm the hypothesis of the cometary nature of the phenomenon, established by I.S. Astapovich and F. Uipplo and now supported by Academician V.G. Fesenkov. A new expedition is now continuing research in the Tungus area. There are 4 figures and 1 table.

Card 1/2

S/026/62/000/008/003/005 DC50/Dll3

New explorations, new results

ASSOCIATIONS: Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo

AN SSSR (Institute of Geochemistry and Analytical Chemistry, AS USSR), Moscow (Florenskiy); Komitet po meteoritam AN SSSR

(Committee on Meteorites, AS USSR), Moscow (Zotkin)

Card 2/2

# FLORENSKIY, K.P.

It was a comet. Nauka 1 zhizn' 29 no.3:78-79 Mr '62. (MIRA 15:7) (Podkamennaya Tunguska Valley-Meteorites)

ZOTKIN, I.T.; FLORENSKIY, K.P.

Encounter with a comet. Znan.-sila 37 no.5:40-43 My. 162.

(MIRA 15:9)

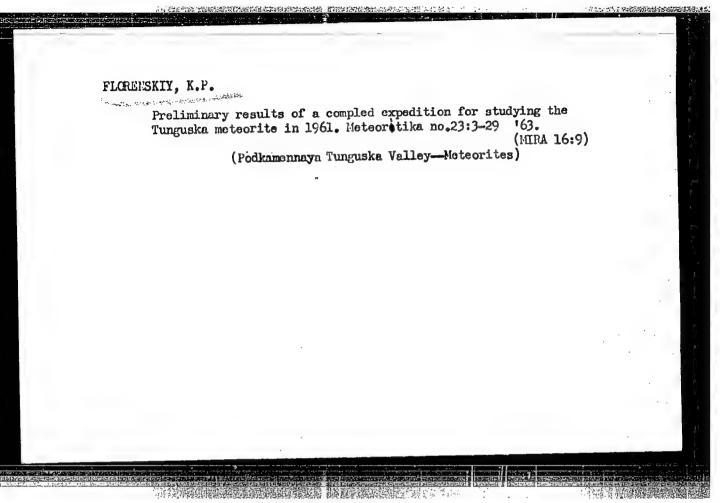
(Podkamennaya Tunguska Valley-Meteorites)

FIORENSKIY, K.P., kand.geol.-mineral.nauk; ZOTKIN, I.T.

New search, new results; the expedition of 1961. Prircda 51 no.8:31-39 Ag '62. (MIRA 15:9)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo AN SSSR, Moskva (for Florenskiy). 2. Komitet po meteoritam AN SSSR, Moskva (for Zotkin).

(Podkamennaya Tunguska Valley—Meteorites)



\$/007/63/000/003/003/003

AUTHOR:

Florenskiy, K. P.

TITLE:

The problem of cosmic dust and the present state of study of the

Tungus meteorite

PERIODICAL: Geokhimiya, no. 3, 1963, 284-296

TEXT: Article deals with problem of small amount of sizable meteoritic fragments which is recoverable on earth. In attempts to clarify composition of vast amount of cosmic dust which does reach earth, further research was conducted on the Tungus meteorite which burst over Siberia in 1908. Several schematic maps showing effect of the meteorite are presented: (1) felling of trees (not completed until 1961) (2) Damage to trees in the immediate area of the epicenter, (3) paths of the blast wave of the explosion, and (4) distribution of magnetic globules in the soil in the affected area.

Conclusion is that the Tungus body was the head of a small comet, the traces of whose tail is the train of disseminated matter reaching 250 km to the northwest. It calls for intensification of study of this type of celestial body connection with origin and composition of cosmic dust.

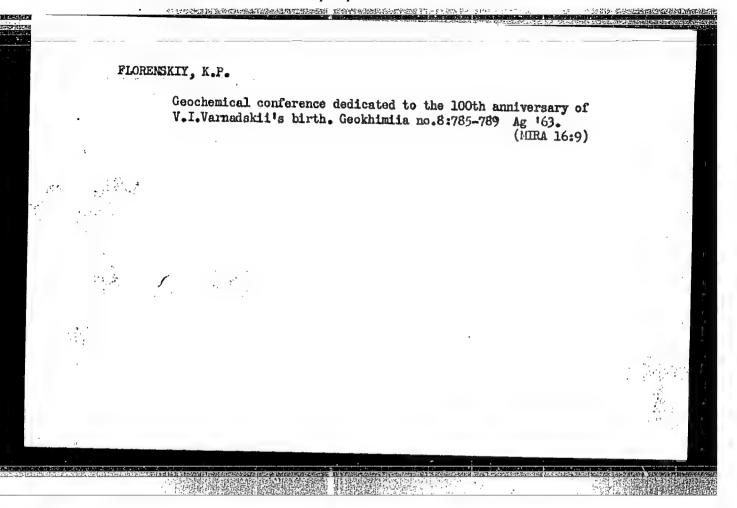
Card 1 of 2

5/007/63/000/003/003/003

The problem of cosmic .....

ASSOCIATION: Institut geokhimil i analiticheskoy khimil im. V. I. Vernadskogo
AN SSSR (Institute of Geochemistry and Analytical Chemistry im
V. I. Vernadskiy, Academy of Sciences USSR); Komitet po meteoritam,
AN SSSR (Committee on Meteorites, Academy of Sciences USSR)

Card 2 of 2



Ten unforgettable years. Och.po ist.geol.znan. no.11:50-98
163.

(Vernadskii, Vladimir Ivanovich, 1863-1945)

(MIRA 16:7)

ACCESSION NR: AP4026379

s/0026/64/000/003/0090/0097

AUTHOR: Vronskiy, B. I. (Moscow); Florenskiy, K. P. (Moscow)

TITLE: Cosmic dust on the Earth

SOURCE: Priroda, no. 3, 1964, 90-97

TOPIC TAGS: cosmic dust, micrometeorite, meteor, magnetic spherule, cosmic spherule, meteorite, magnetite spherule, silicate spherule, black spherule, silicate, Ni, Mn

ABSTRACT: The task of studying the average composition of cosmic dust and determining the amount of its fallout on the Earth entails the use of varied methodologies, including chemical analysis, which has only recently become practically feasible, and astronomical methods. Sufficiently pure, finely pulverized cosmic material, free of dust of terrestrial origin, can be collected in the stratosphere with airplanes or high-altitude rockets, such as the "Venus Flytrap," launched by the USA in 1961. The extraterrestrial dust in the upper layers of the atmosphere is mostly micrometeoritic, while that which reaches the Earth's surface is principally meteoric -- consisting of magnetic or

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ACCESSION NR: AP4026379

silicate spherules, first found by Sir John Murray in 1876 in deep ocean sediments -- or meteoritic. Most studies of cosmic dust have been directed toward the magnetic spherules, since the nickel content in them is a certain criterion for determining their extraterrestrial origin, while more or less definite proof of their terrestrial origin is an increase in their manganese content. There is no such criterion for the silicate spherules and they are, at present, practically indistinguishable from industrial and terrestrial spherules. Studies have indicated the cosmic origin of magnetic spherules found in deep ocean deposits. The study of magnetic spherules found in atmospheric dust or on the Earth's surface is hampered by the mass pollution of the atmosphere with industrial dust. Much work has been done by P. W. Hodge and R. Wildt, who in 1955-1956 made a daily collection of atmospheric dust in three thinly populated regions in California, Alaska and Canada. They found an even distribution of spherules in all three areas. This shows conclusively that cosmic spherules in general settle rather evenly on the Earth's surface, creating a cosmic background. Much work has also been done by Komitet po meteoritam Akademii nauk SSSR (Committee on Meteorites of the Academy of Sciences USSR) and Institut geokhimii im. V. I. Vernadskogo (Institute of Geochemistry) in the region of the Tunguska crater. Numerous soil samples were found to contain magnetit

Card 2/3

## "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6

ACCESSION NR: AP4026379

spherules with a nickel content of up to 10%, thus confirming their cosmic nature. Work done in 1961-1962 established a definite regularity in the distribution of these spherules. It is concluded that the contamination of the Earth's surface with industrial dust makes it impossible in many cases to distinguish extra-terrestrial dust from artificial dust with adequate certainty, and that the complexity of the problem and the inadequacy of our knowledge, as illustrated by the divergence of estimates as to the annual amount of cosmic dust fallout on the Earth, indicate the need for further research. Original article has 2 figures and 2 photographs.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 08Apr64

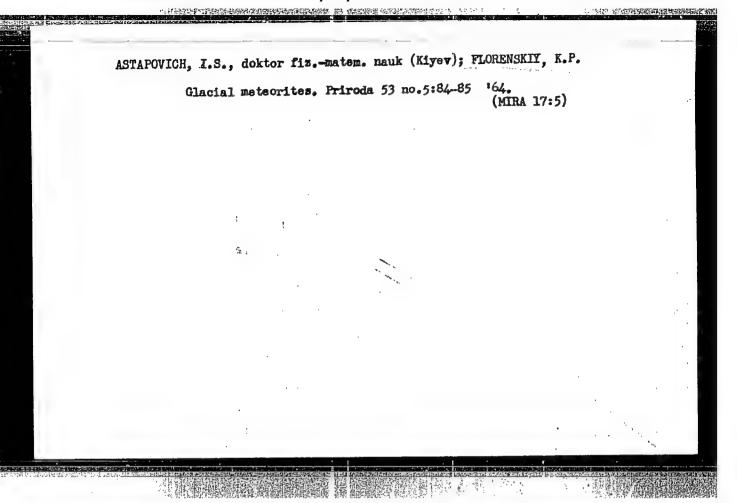
ENCL: 00

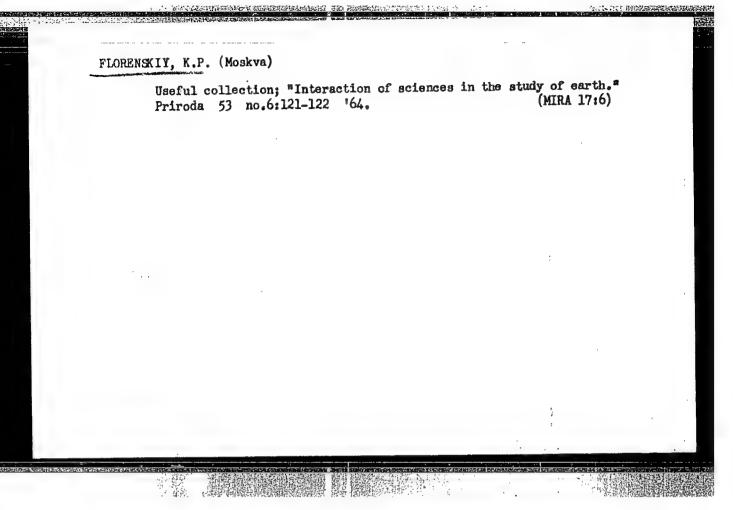
SUB CODE: AS

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OTHER: 003

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# "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6

10 100 1040) 700 XXI XXX 005507 BOURGE CODE: UK/0000/00/000/009/0109/0111 AUTHOR: Wlovykin, G. P. (Candidate of Chemical Sciences); Zotkin, I. T.; Florenskiy, K. P. (Candidate of geological Mineralogical Sciences) ORG: none TITLE: Mateor investigations (Conference at Novosibirsk) SOURCE: AN SSSR. Vestnik, no. 9, 1966, 109-111 TOPIC TAGS: meteorite, astronomic conference, thermoluminescence ABSTRACT: The Committee on Moteorites and the Commission on Meteorites of the Siberian Department Academy of Sciences USSR sponsored the Twelfth Metcorite Conference in Marmansk during the period 24-27 May. It was covended by 100 persons; 30 reports were presented. Several reports were presented on field and laboratory studies of the Kaali (Estonia) meteorite craters, the largest in the USSA. Study of the scattered meteorite matter has shown that the concentration of metal fragments now is 50 g/ton of fractured rock. A decreased thermoluminoscence of the dolomite from the crater was discovered. The limenitized meteorite fragments contained pyroxene, schreibersite and ferronickel. Ye. N. Kramer reported that photographic studies of meteors revealed that the Card 1/2

Velocity of the individual fragments increases during the disintegration of a meteor body. For determining the pre-atmospheric sizes of moteors and the depth from which they came in the parent body 1. K. Lavrukhin and T. A. Forayev have proposed the use of pairs of isotopus with close half-lives Na <sup>22</sup> and V <sup>49</sup> or Nn <sup>54</sup> , and for older meteorites Ce <sup>36</sup> and Yn <sup>34</sup> . A. A. Yawnel has shown that the FeO:MgO:SiO <sub>2</sub> relations in the silicates of chondrites confirm the separation of chondrites into three groups. The main silicate minerals of chondrites are not in equilibrium conditions during crystallization. Yu. D. Nozmanov reported on high-temperature exidation in the crust of meteorites which is characteristic of the segregation of iron and nickel. Numerous reports were given on the Tunguska meteor. Academician V. G. Fosenkov contends it was a small comet. A. V. Zeletov believes that the velocity of the Tunguska body was small and its explesion occurred due to internal energy. K. G. Francy proposed that the magnetic effect and glow of the sky associated with the falling of the Tunguska body be attributed to photeionization processes in the ionosphere. The conferees complained that fantastic explanations of the Tunguska event still are being published.  [JP33: 38,460]  SUB CODE: O3 / SUBM DATE: none	
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# "APPROVED FOR RELEASE: 06/13/2000 CIA-

CIA-RDP86-00513R000413330001-6

ACC NR: AP6035532

SOURCE CODE: UR/0007/66/000/010/1269/1270

AUTHOR: Florenskiy, K. P.; Vdovykin, G. P.

ORG: none

TITLE: Twelfth meteoritic conference [Held in Novosibirsk from 24 to 27 May 1966]

SOURCE: Geokhimiya, no. 10, 1966, 1269-1270

TOPIC TAGS: meteorite, meteor tracking, meteor observation, phase analysis, isotope,

ABSTRACT: More than 30 papers were presented at this conference. Several of the papers dealt with the structure and composition of the Kaali meteoritic craters on Saaremaa Island (Estonia); the 1965 expedition discovered a new, eighth crater in this group. Various aspects of the 1908 Tunguska Meteorite Crater also considered: it was shown that the shock wave generated by the explosion of this meteorite was a ballistic wave, that the explosion itself must have taken place at an altitude of ~10 km, and that, as demonstrated by studies of the charred trees within the affected radius, it had not been accompanied by an increase in local radioactivity. Further, it was suggested (Academician V. G. Fesenkov) that the Tunguska Crater

Card 1/2

UDC: 523, 51: 006, 3

ACC NR: AP6035532

was blasted not by a meteorite but by a small comet that had penetrated the Earth's atmosphere. The paper by A. K. Lavrukhina and T. A. Ibrayev suggested using isotope pairs with similar half-life periods (Na<sup>22</sup> and V<sup>49</sup> or Cl<sup>36</sup> and Mn<sup>54</sup>) to determine the preatmospheric radius and degree of ablation of iron meteorites. The topics considered in other papers included: chemical composition of chondrite silicates; distribution of rare elements between various phases of meteoritic matter; measurements of uranium concentration in Sikhote-Alin and Arus meteorites as well as in tektites (moldavites) by the method of recording fission-fragment tracks. The resolution adopted by the Conference recommended, among other things, that attention be focused on expanding basic research into the physical theory of the descent of meteorites and comets and pointed to the importance of searching for and investigating meteoritic craters on the area of the USSR. It also noted that, despite numerous protests by scientists, the policular, on the Tunguska Crater, thus misleading the wide public instead of making it aware of the real nature of this problem.

SUB CODE: 03,08/ SUBM DATE: none

Card 2/2

FLORENSKIY, N. D. Doc Med Sci -- (diss) "Compression osteosynthesis."

Ivanovo, 1957. 22 pp with illustrations. (2nd Mos State Med Inst im

I.I. Pirogov). 200 copies.

(KL, 8-58, 107)

# FLORENSKIY. N.D., kandidat meditsinskikh nauk

1. 人名巴特纳人 (PHINGS AND SEARCH SEARCH

Compression fixation in surgery for tuberculous gonitis in adults.

Khirurgiia 33 no.2:96-100 P \*57. (MIRA 10:6)

1. Is Sokol'skoy rayonnoy bol'nitsy Ivanovskoy oblasti (glavnyy vrach W.D.Florenskiy)
(TUBERGULOSIS, OSTROARTIGULAR, surg.
knee, technic with compression fixation (Rus))

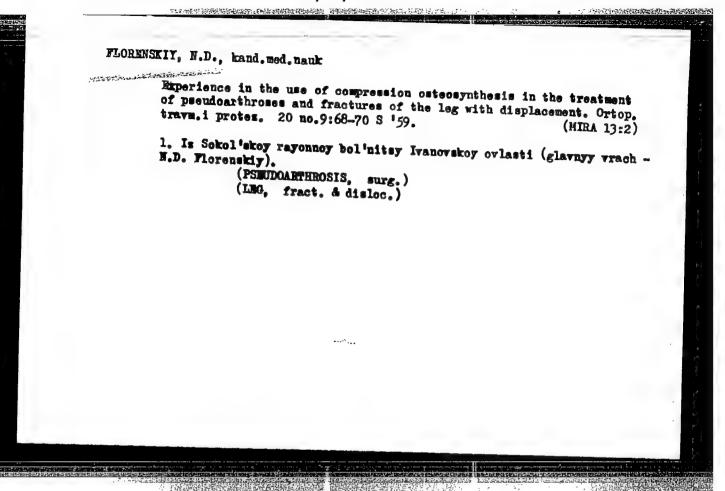
FLORENSKIY, H.D., kand.med.nauk

Drainage of the abdominal cavity in profuse suppurative peritonitis. Vest.khir. 80 no.1:116-118 Ja '58. (MIRA 11:4)

1. Is Sokol'skoy rayonnoy bol'nitsy Ivanovskoy oblasti (gl. vrach - N.D.Florenskiy). Adres avtora: poselok Sokol'skoye, Ivanovskoy oblasti, rayonnaya bol'nitsa.

(PERITOHITIS, ther.

drainage & peritoneal irrigation in suppurative peritonitis (Rus))



Morphogenesis of callus in the healing of fractures.

Khirurgiia 39 no.5:29-35 My '63. (MIRA 17:1)

TO DESCRIPTION OF THE PROPERTY OF THE PROPERTY

l. Iz kafedry fakulitetskoy khirurgii (ispolnyayushchiy obyazannosti zaveduyushchego - dotsent N.D. Florenskiy) Ivanovskogo meditsinskogo instituta.

FLORENSKIY, N.D., doktor med. nauk

Prevention and treatment of posture defects and lateral non-specofoc curvatures of the spine (scoliosis) in children. Sbor. nauch. trud. Ivan. gos. med. inst. no. 28:121-126 \* 63. (MIRA 19:1)

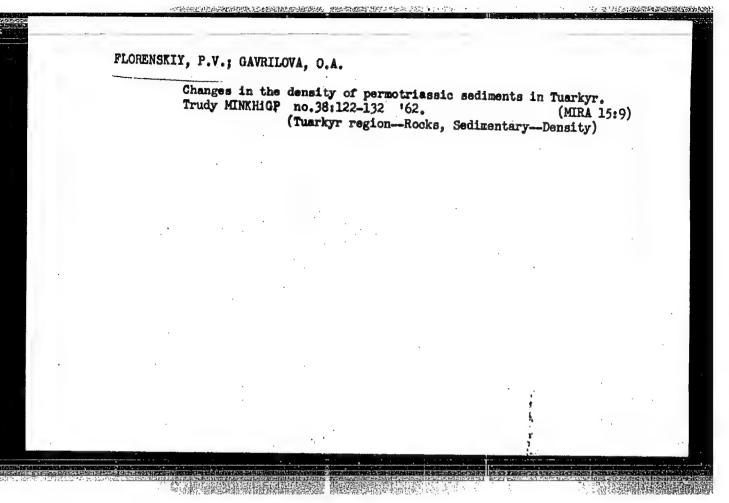
1. Iz kafedry fakul\*tetskoy khirurgii (ispolnyayushchiy obya-zannosti zav. kafedroy - N.D. Florenskiy) Ivanovskogo gosudar-stvennogo meditsinskogo instituta ( rektor - dotsent Ya.M. Romanov).

KNYAZEV, V.S.; FLORENSKIY, P.V.

Lithology of Permotriassic sediments in the Kysan area of the Busachi Peninsula. Trudy MINKHiCP no.38:110-121 '62.

(MIRA 15:9)

(Kysan region—Rocks, Sedimentary)

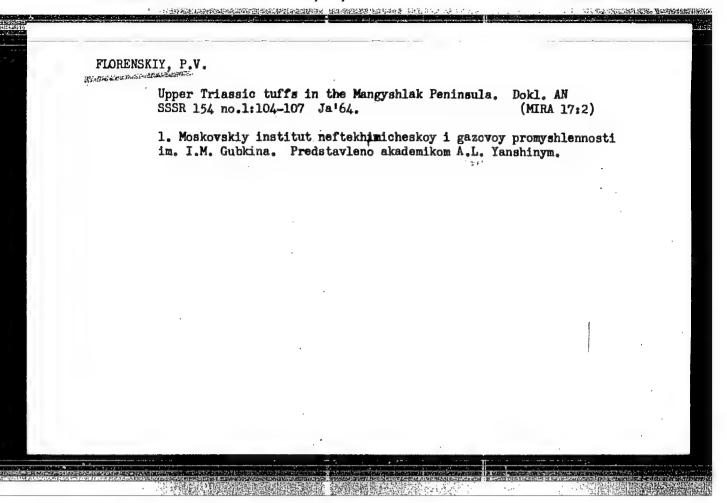


GARETSKIY, R. G.; PANTELEYEV, G. F.; FLORENSKIY, P. V.; SHLEZINGER, A. Ye.

Rocks of the folded basement in the central Usturt. Izv. AN SSSR.Ser.geol. 29 no. 1:50-62 Ja 164. (MIRA 17:5)

1. Geologicheskiy institut AN SSSR, Moskva; trest "Soyuzburgaz" i Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti.

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L 10933-67 EWT(d)/EWT(1)/EWP(1) WVH/GD/GW

ACC NR: AT6022296

SOURCE CODE: UR/0000/66/000/000/0085/0090

AUTHOR: Florenskiy, P. V.

.35

ORG: none

TITLE: Cyclic processes within the biosphere caused by cosmic factors and the feasibility of their incorporation into planning

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio, 22d. 1966. Sektsiya bioniki. Doklady. Moscow, 1966, 85-90 and pages 130-132

TOPIC TAGS: earth planet, earth thermodynamics, cosmology, atmospheric circulation. atmosphere, meteorology

14 ABSTRACT: The forecasting of needs and of production volume forms the basis of planning in national economy. Production is concentrated in the biosphere. The biosphere on the boundary between the solid, liquid, and air media exists in a complex dynamic equilibrium is most susceptible to external, outer space influences. The author gives a brief survey of such outer space changes caused by the succession of days and nights the seasons of the year, the 170 to 190 million year cycle (period of rotation of the solar system around the galaxy), the 40,000 year period due to the procession of Earth inclination, and other known cycles (1800 years, 100 years; 10-12 years, 27 days (solar rotation cycle) etc.). He points to the importance of these changes for the efficiency of man-operators. The author thanks K. P. Florenskiy and V. N. Semenov for advice incorporated into the work.

Card 1/1 SUB CODE: 04.05/ SUBM DATE: 08Apr66/ ORIG REF:

# FLORINSKIY, V.A., dotsent Some repults of the work of the Ivanovo Province section of the All-Russian Hygienic Society. Gig. i san. 26 no.6:112-113 Je '61. (MIRA 15:5) l. Predsedatel Ivanovskogo oblastnogo otdeleniva Vserossiyskogo gigiyenicheskogo obshchestva. (IVANOVO PROVINCE—PUBLIC HEALTH SOCIETIES)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6"

BERLOV, G.A. (Irkutek); "FLORENSOV, A.A., podpolkovnik meditsinskoy sluzhby, nachal'nik.

Intercostal and horizontal section of the lungs in autopsy. Arkh.pat. 15 no.2:82 Mr-Ap '53. (MLRA 6:5)

1. Okruzhnaya patologeanatemicheskaya laboratoriya. (Lungs) (Autepsy)

S

USSR / Human and Animal Morphology (Normal and Pathological).
Methods and Techniques of Investigation.

Abs Jour : Ref Zhur - Biologiya, No 9, 1958, No. 40705

Author : Florensov, A. A.

Inst : Not given
Title : Methods of Preservation of Histopathological

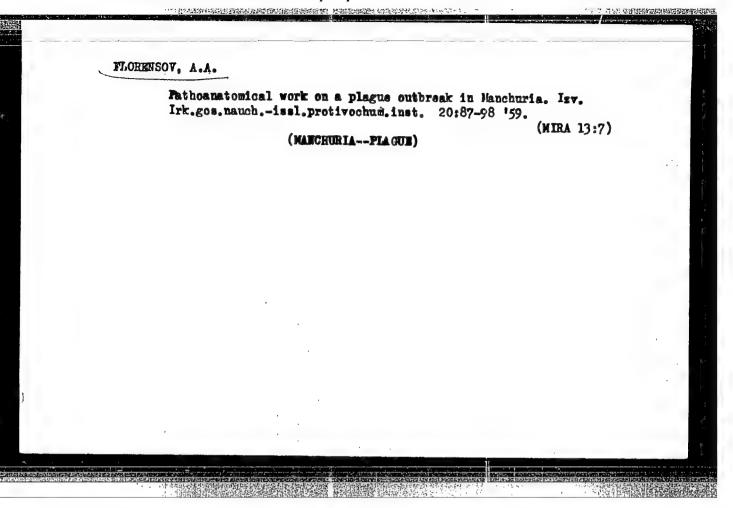
Preparations

Orig Pub : V sb.: Vopr. travma tol. i ortopedii. Vyp. 4. Irkutsk,

1957, 72-73

Abstract : No abstract given

Card 1/1



KRAMARENKO, G.N.; NECHAYEVA, Z.P.; TKACHENKO, S.S., dotsent; FLORENSOV, A.A., kand.med.nauk; LADIS, I.A.; VARFOLOMEYEVA, S.N.; KOSTRIKOV, V.S., kand.med.nauk

Reports on meetings of societies of traumatologists and orthopedists. Ortop., travm. i protez. 21 no.8:32-94 Ag '60. (MIRA 13:11)

(ORTHOPEDIC SOCIETIES)

### "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6

FIGRENSOV, A.A., kand. med. nauk (Irkutsk, Kiyevskaya ul., d.29, kv.3)

Changes in the cartilage of the joints of the median segment of the foot in some of its deformities. Ortop., travm. i pretez. no.9:45-49 '62. (MIRA 17:11)

 Iz Irkutskogo instituta travmatologii i ortopedii (dir. - prof. Z.V. Bazilevskaya).

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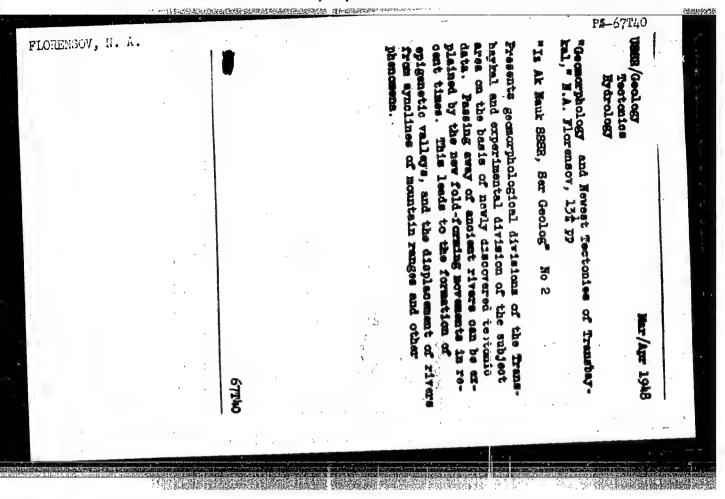
#### CIA-RDP86-00513R000413330001-6

"The Yablon Mountain Range in the Transbalkul," N. A.
Florensov, 2 pp

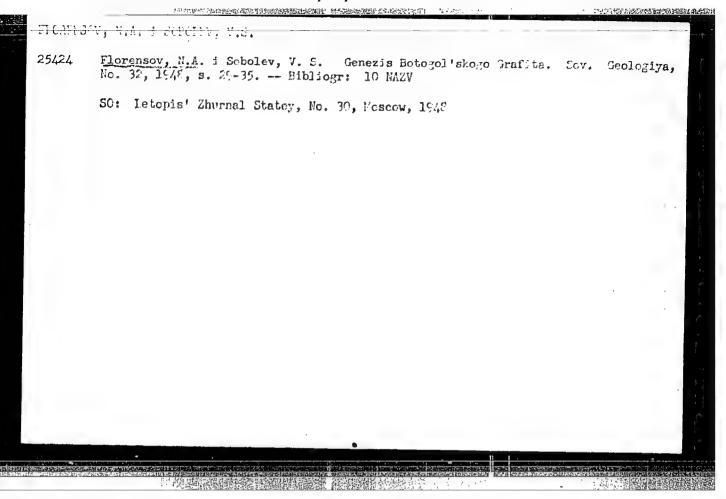
"It Vsesoyus Geog Obshchestva" Vol LXXII, No 4

A recent expedition to the southwestern part of the Yablon Mountain Range has uncovered a wealth of geological material and once again has centered attention on this region. Discusses the general history of expeditions to the range and gives some general description of the nature and geological formations of this southwestern portion of the mountain range.

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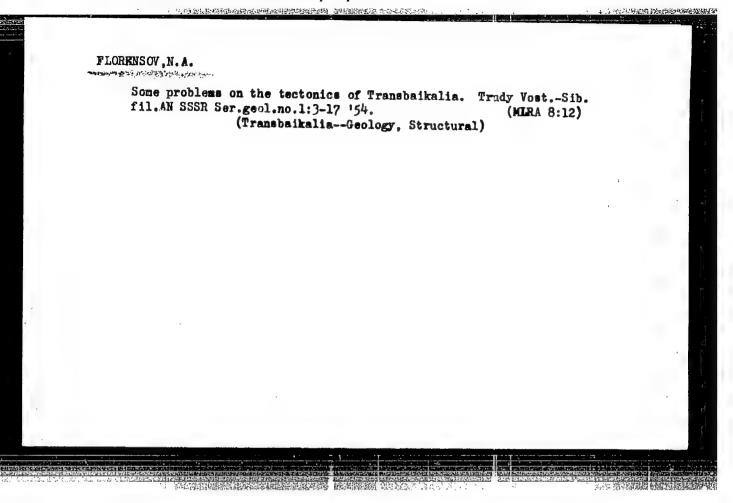


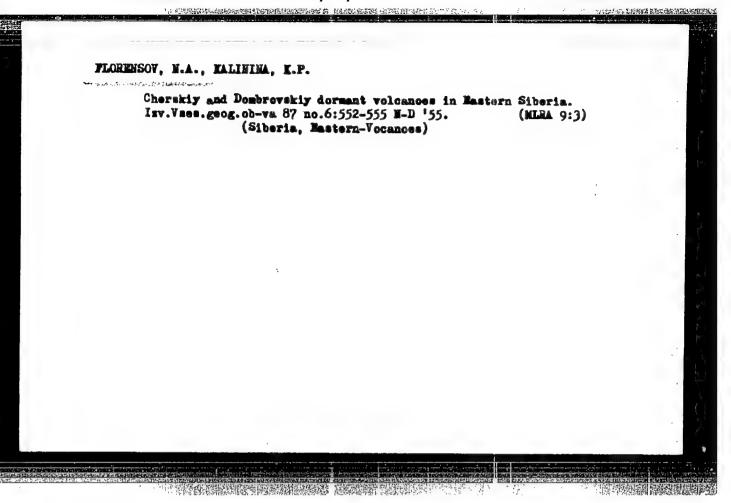
FLORENSOV, N.A.; LOSKUTOVA, N.V.

Hew data on the Tunkinskiy volcanoes (western Baikal region). INV.AN SSSR Ser.geol. no.5:96-104 5-0 '53.

(Baikal region--Volcanoes) (Volcanoes--Baikal region)

(Volcanoes--Baikal region)





FLORENSOV, Nikolay Aleksandrovich Name:

Dissertation: Mesocainozoic depressions of the

Pribaykal

Source: Doc Geol-Min Sci

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Affiliation: /not indicated/

12 Nov 56, Council of Moscow Order of Lenin and Order of Labor Red Banner Defense Date, Place:

State U imeni Lomonosov

Certification Date: 6 Jul 57

Source: BMVO 18/57

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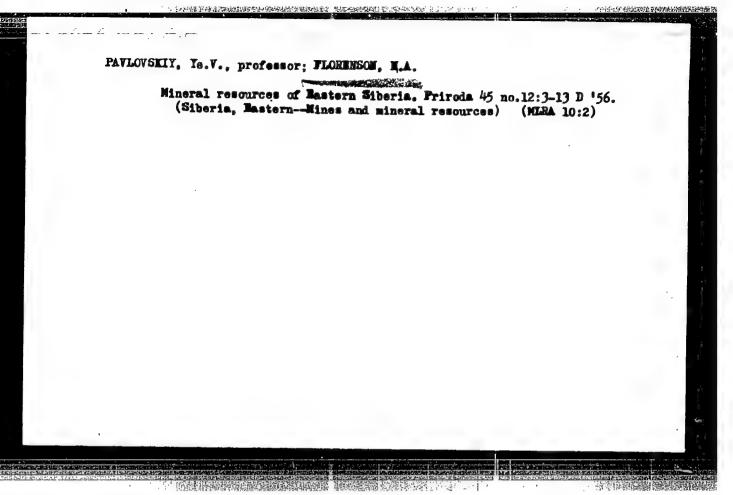
CIA-RDP86-00513R000413330001-6" APPROVED FOR RELEASE: 06/13/2000

Some structural characteristics of coal-bearing formations in the Baikal region. Trudy Lab.geol.ugl. no.6:558-567 '56.

(MLRA 10:2)

1. Vostochnosibirskiy filial Akademii nauk SSSR.

(Baikal region--Coal geology)



# "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6

ODINTSOV, H.M.; FLORIZZOV, H.A.; EMELLY, P.M.

Some geological features in the distribution of mineral resources in the southern part of Eastern Siberia. Izv.voet.fil. AN SSER no.2:29-N2 157. (MLRA 10:9)

1. Vostochno-Sibirskiy filial Akademii nauk SSSR. (Siberia, Restern-Geology) (Mines and mineral resources)

FERRENSOY, A.A.

3(10)

PHASE I BOOK EXPLOITATION

SOV/2458

Akademiya nauk SSSR. Institut fiziki zemli

Voprosy inzhenernoy seysmologii, Vyp. 1 (Problems in Engineering Seismology, Nr 1) Moscow, Izd-vo-AN SSSR, 1958. 129 p. (Series: Its: Trudy, no. 1/168/) 1,600 copies printed.

Eds.; S.V. Medvedev, Doctor of Technical Sciences, and A.Z. Kats, Candidate of Physical and Mathematical Sciences; Ed. of Publishing House: N.V. Shebalin; Tech. Ed.: N.D. Novichkova.

PURPOSE: The book is intended primarily for seismologists; it may also be of interest to construction engineers.

COVERAGE: This issue of the Transactions of the Institute of Earth Physics treats questions in seismology and the effect of seismic tremors on man-made structures. S.V. Medvedev describes a multi-channel method of measuring vibrations in a rigid structure on an elastic foundation. The use of the vibrograph VEGIK, oscillograph POB-12, and galvanometers GB - III and GB - IV in the method is described. The author thanks Ye.S. Borisevich and D.P. Kirnos. References accompany each article.

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# "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6

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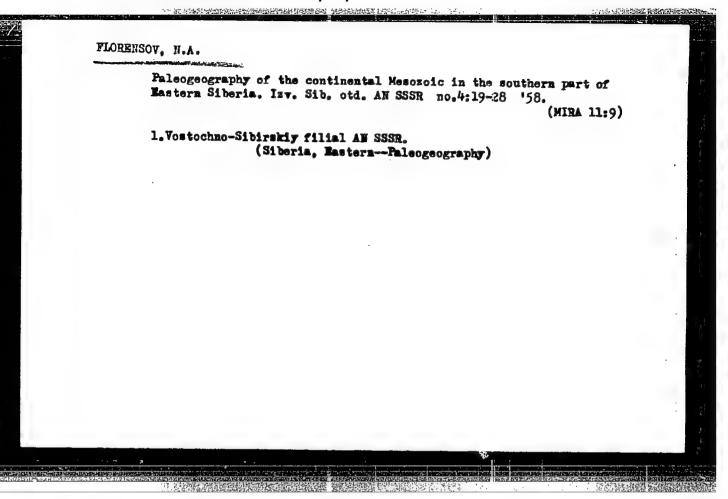
# "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6

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PUCHKOV, S.V.; SOLOHENIO, V.P.; TRESIDY, A.A.; FLORENSOV, N.A.

A recent powerful earthquake in Eastern Siberia. Isv. Sib., otd. AN SSSR no.3:42-51 '58. (MIRA 11:8)

1. Vostochno-Sibirskiy filial AN SSSR i Institut fiziki Zemli AN SSSR. (Siberia, Eastern-Tarthquakes)



ODINTSOV, M.M.; FLORENSOV, M.A.; EHREHOV, P.M.

Distribution of mineral resources in the geological structure of Eastern Siberia. Trudy Vest, Sib. fil. AH.SSSR ne.14:9-36. 158, (MIRA 12:3) (Siberia, Eastern-Geology, Structural) (Siberia, Eastern-Mines and mineral resources)

SVYATLOVSKIY, A.Ye.; FLORENSOV, N.A.

Some characteristics of Cenozoic volcanism in East Africa and the Lake Baikal region. Trudy Irk. un. 14:83-98 '55, (MIRA 16:7)

(Africa, East—Volcances)

(Baikal Lake region—Volcances)

#### "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6

Florensov, N.A., Professor AUTHOR:

26-58-7-14/48

TITLE:

A Catastrophic Earthquake in the Gobi Altay (Katastroficheskoye zemletryaseniye v Gobiyskom Altaye)

PERIODICAL:

Priroda, 1958, Nr 7, pp 73-77 (USSR)

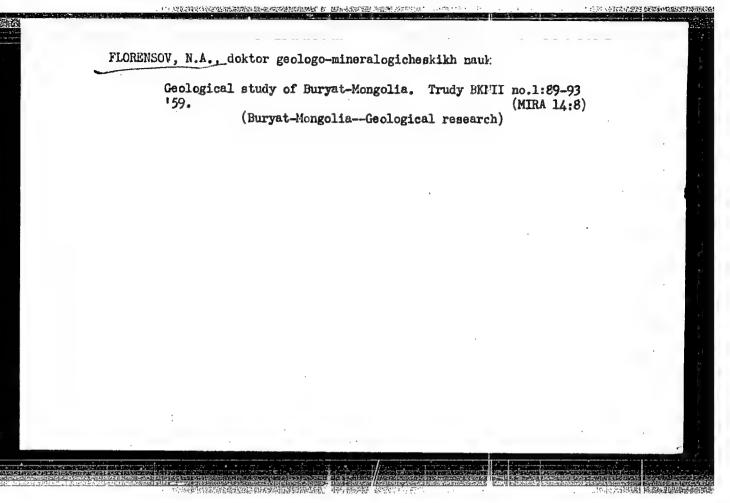
ABSTRACT:

Soviet researchers V.P. Solonenko, A.A. Treskov and the author of this article, together with the Mongolian researchers I. Balzhinnyam, O. Namnandorzh and Sh. Tsebek visited the scene of the gigantic earthquake of 4 December 1957 in the south part of the Mongolian People's Republic in the Gurvan-Bogdo Mountains, which form the northern part of the Gobi Altay. The earthquake was the heaviest recorded in recent times. For 3 months after the earth did not come to rest in this region, which is subject to many earthquakes. Due to a sporadic occurrence of inhabitants and the light structure of the few buildings, an otherwise great disaster was prevented. The article contains a detailed catalogue of the mountain slides and earth fissures in the area based on the individual findings of the researchers. There are 4 photos on insert, 2 photos in the text and 1

Card 1/2

diagram. Twos: East Scheria Uffil AS USSR- Irkutak

# "APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6



FLORENSOV, SOV/49-59-10-19/19 Solov'yev, S. L. AUTHOR: TITLE: Session on Seismology and Tectonics of the Pre-Baikal and the Adjacent Regions PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya 1959, Nr 10, pp 1527-1528 (USSR) ABSTRACT: The Session took place on the 9 to 17 June 1959. It was convened by the Council on Seismology, Ac. Sc. USSR; the East Siberian Geological Institute, Ac. Sc. USSR, the Irkutsk State University. It was opened by the Chairman of the East Siberian Seismic Department. Ac. Sc. USSR, Professor V. A. Krotov. The following scientists submitted their papers: A. A. Treskov (Seismic Station Irkutsk) - Seismicity of the Pre-Baikal, N. A. Florensoy (East Siberian Geological Institute) -YEarthquakes Determined from Excavated Rocks, B. A. Petrushevskiy (Institute of Physics of the Earth, Ac. Sc. USSR) - Geological Development in South Siberia, V. A. Aprodov (Moscow University) - Geomorphology and Seismo-Tectonics of Mongolia, I. A. Rezanov (Institute of Physics of the Earth, Ac. Sc. USSR) - Neo-Tectonics of the Far East, V. N. Danilovich (Irkutsk Institute of Card 1/4

SOV/49-59-10-19/19

Session on Seismology and Tectonics of the Pre-Baikal and the Adjacent Regions

Mining and Metallurgy) - Morphological Peculiarities of the Pre-Baikal, N. P. Ladokhin (East Siberian Geological Institute) - Tectonic Motions of the Bottom of Gulf Proval, V. P. Solonenko and N. A. Florensova (East Siberian Geological Institute) - Foci of Gobi-Altai Earthquakes, S. V. Puchkov and P. I. Khovanova (Institute of Physics of the Earth, Ac. Sc. USSR) - Results of the Pre-Baikal Seismic Expedition, S. L. Solov'yev (Council on Seismology, Ac. Sc. USSR)
Analysis of the Earthquake Chart of the Pre-Baikal, K. V. Pshennikov (Seismic Station Irkutsk) and A. V. Vvedenskaya (Institute of Physics of the Earth, Ac. Sc. USSR) - Motions in the Foci of Strong Baikal Earthquakes, L.M. Balakina (Institute of Physics of Earth, Ac. Sc. USSR) - Motions in the Foci of Gobi-Altai Earthquakes, A. P. Bulmasov (Irkutsk University) - Chart of Magnetic and Gravitational Anomalies of the Pre-Baikal, Ye. K. Grechishchev (East Siberian Geological Institute) -Costal Motions of the Lake Baikal, L. A. Misharina (Irkutsk University) A. A. Treskov and G. M. Medvedeva Card 2/4

Card 3/4

SOV/49-59-10-19/19

Session on Seismology and Tectonics of the Pre-Baikal and the Adjacent Regions

(Seismic Station, Irkutsk) - Seismo-Tectonics of the Pre-Baikal, V. N. Gayskiy (Institute of Seismo-Rigidity of Constructions and Seismology Ac. Sc. Tadzik SSR) - Earth's Crust, V. N. Bichevina (Sakhalin Scientific Institute, Sakhalin Branch of Ac. Sc. USSR) - Thickness of the Earth's Crust in the Far East, C. N. Solov'yeva, E. F. Savarenskiy and A. P. Lazareva (Institute of Physics of the Earth, Ac. Sc. USSR) - Mean Thickness of the Earth's Crust in the Arctic Sea, G. P. Chermnykh (Seismic Station Petropavlovsk) - Earthquake in Kamchatka on the 4 May 1959, M. G. Aratekov (Institute of Geology, Ac. Sc. Azerbaydzhan SSR) - Fold Formations in Apcheronsk Peninsula, Li Shan'-pan (Institute of Geophysics and Meteorology, Chinese Ac. Sc.) - Seismological Investigations in China, and L. Natsagyum (Committee for Sciences and Higher Schools, Mongolian Republic) - Tectonics of Central Mongolia. Others who took part in the discussions were Corresponding Members of the Ac. Sc. USSR, E. E. Fotiadi and Yu. A. Kosygin,

SOV/49-59-10-19/19

Session on Seismology and Tectonics of the Pre-Baikal and the Adjacent Regions

。 《元·伊克·西斯·西西斯卡斯·伊西阿斯斯·西斯拉斯·西斯·西斯·西斯·西斯·

The Director of the East Siberian Geological Institute M. M. Odintsov, and the Deputy Director of the Institute of Physics of the Earth, Ac. Sc. USSR, Ye. A. Koridalin. The Session was closed by the Rector of the Irkutsk University, V. Ya. Rogov.

Card 4/4

SOLONENKO, V.P.; TRESKOV, A.A.; FLORENSOV, N.A.; KITAYENKO, L.G., red. izd-va; BYKOVA, V.V., tekhm. red.

[The catastrophic Gobi-Altai earthquake of December 4, 1957; a seismological survey] Katastroficheskoe Gobi-Altaiskoe zemletriasenie 4 dekabria 1957 goda; seismogoologicheskii ocherk. Moskva, Gosgooltekhizdat, 1960. 45 p. (MIRA 14:10)

[Gobi-Altai District—Farthquake, 1957]

FLORENSOV, Mikolay Aleksandrovich; ODINTSOV, M.M., doktor geol.-miner.nauk, glavnyy red:; DAMILOVICH, V.P., doktor geol.-miner.nauk, ovt.red.; SEMENOVA, Ye.A., red.izd-va; SMIRNOVA, A.V., tekhn.red.

· 一个对对一位的原则是在我们的现在对对的一种。

[Mesozoic and Cenozoic depressions in the Baikal region] Mezozoiskie i Kainozoiskie vpadiny Pribaikal'ia. Moskva, Izd-vo Akad. nauk SSSR, 1960. 257 p. (Akademii nauk SSSR. Vostochno-Sibirskii filial, Irkutsk. Trudy, no.19).

(MIRA 13:9)

(Baikal region-Geology)

- Inchesitations and a second a

# FLORENSOV, N.A.

Recent tectonics and seismicity of the Mongolian-Baikal mountainous area. Geol. 1 geofix. no.1:74-90 160. (MIRA 13:9)

1. Vos tochno-Sibirskiy geologicheskiy institut Sibirskigo otdeleniya AN SSSR.

(Baikal region-Seismic prospecting)
(Mongolia-Seismic prospecting)

S/519/60/000/008/022/031 D051/D113

AUTHORS: Florensov, N. A.; Treskov, A. A.; Solonenko, V. P.

CECUTAL NUMBER OF THE VALUE OF THE PROPERTY OF

TITLE: On the seismic zoning of East Siberia

SOURCE: Akademiya nauk SSSR. Sovet po seysmologii. Byulleten!, no. 8, Moscow, 1960. Voprosy seysmicheskogo rayonirovaniya, 175-178

TEXT: A brief analysis of seismic zoning problems in East Siberia is given. The authors emphasize the special importance of geological criteria, pointing out that their assumption of a 900 km zone of high seismicity stretching from the South Baikal Depression towards the north-east, was justified by the Muya earthquake of June 27, 1957, and other seismic events which subsequently occurred in the same area. This assumption, basically founded on geological criteria, comparative data and a few individual facts, refuted previously held theories on the aseismicity of the Vitimo-Olekminskaya Oblast, and thus proved the unsuitability of the seismostatistical method for uninhabited or sparsely populated places. In order to help complete the insufficient seismostatistical data, the authors draw attention to two seis-

Card 1/2

On the seismic zoning ...

S/519/60/000/008/022/031 D051/D113

mically important geological features of the Baikal region, important for seismic zoning: (a) rectilinear faults of apparently seismic-tectonic origin, and formed several thousand years ago at the most; (b) the presence in Cenezoic intermentane melassa of huge rock fragments, undoubtedly of volcanic origin. Since recent tectonics is the most important factor on which seismic forecasting should be based, the authors divided East Siberia into four zones of possibly different seismic activity. This classification, however, should only be used for the accurate reprocessing of a small-scale seismic zoning map. If such a map is to be enlarged in scale, it should be considered that in the Mongol-Baikal seismic zone, the distribution of seismic intensity within the area of propagation of a heavy earthquake is irregular. Specifications concerning this irregularity are given. The authors recommend that the network of seismic stations should be expanded and that tectonicseismic problems in the Baikal region should be more deeply studied. There are 1 map and 1 non-Soviet reference. The English-language reference is B. Gutenberg a. C. F. Richter. Seismicity of the Earth and associated phenomena. Princeton university press, 1954.

ASSOCIATION: Irkutskiy gosudarstvennyy universitet (Irkutsk State University)

Card 2/2

#### FLORENSOV, N.A.

Recent tectonics of the Baikal region and its relation to seismicity. Biul. Sov. po seism. no.10:11-20 160. (MIRA 13:11)

1. Vostochno-Sibirskiy geologicheskiy institut Sibirskogo otdeleniya AN SSSR, Irkutsk.

(Baikal region-Geology, Structural)
(Baikal region-Seismology)

# SOLONENKO, V. P.; FLORENSOV, N. A.

The Gobi Altai earthquake of December 4, 1957. Biul. Sov. po seism. no.10:85-89 60. (NRA 13:11)

1. Vostochno-Sibirskiy geologicehskiy institut Sibirskogo otdeleniya AN SSSR, Irkutsk. (Gobi Altai-Sarthquake, 1957)

S/169/61/000/010/011/053 D228/D304

AUTHORS:

Solonenko, V. P., Treskov, A. A., and Florensov, N. A.

TITLE:

Seismic zoning of Eastern Siberia

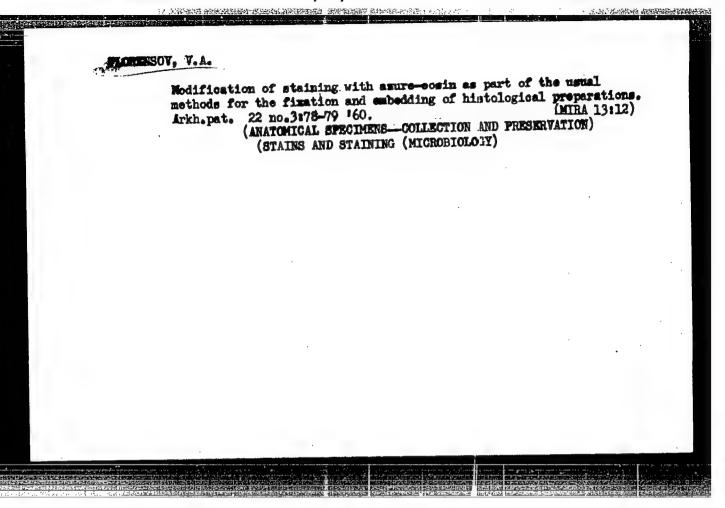
PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 10, 1961, 14, abstract 10A155 (Geologiya i geofizika, no. 10, 1960,

104-114)

TEXT: Historical information is cited concerning the seismic zoning of Eastern Siberia, the apportionment of the seismic areas being substantiated by seismostatistical, geologic and paleoseismic material. A map of the seismic zoning of Eastern Siberia, based on the latest factual data, is published for the first time. 39 references. Abstracter's note: Complete translation.

Card 1/1



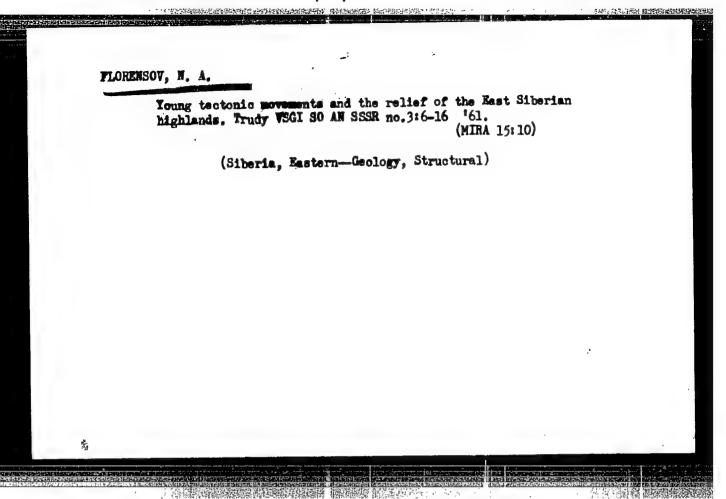
50.30克利达 经组织股份的现在分词

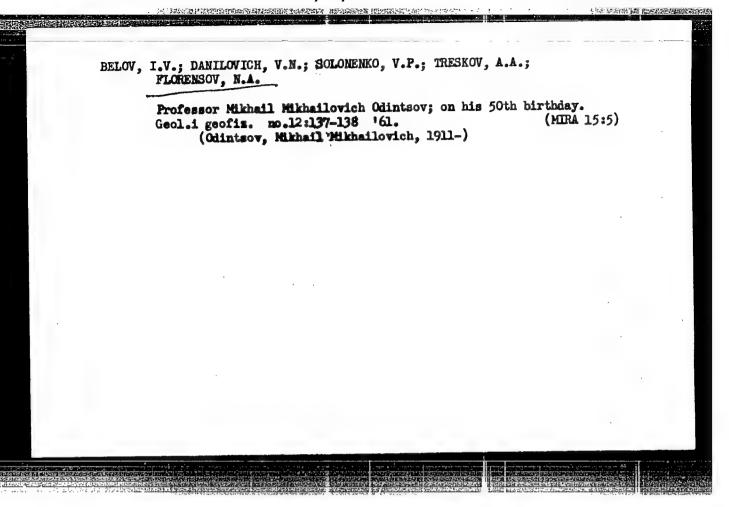
SOLONENKO, V.P., professor; FLORENSOV, N.A.

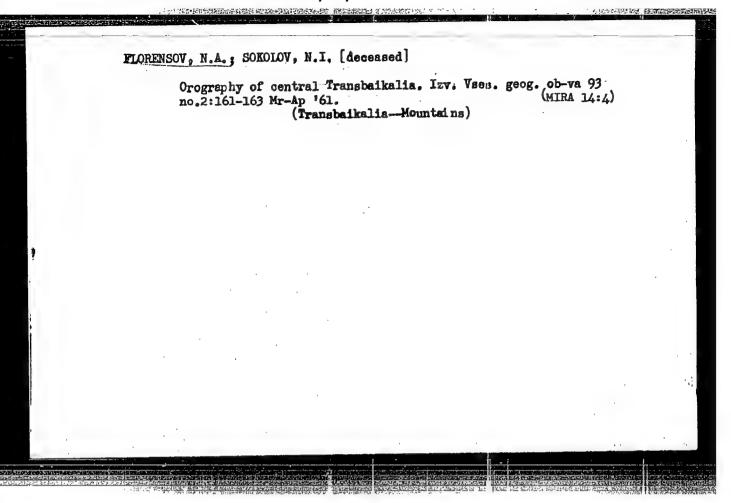
Ancient cemetary in the Gobi Altai Mountains. Priroda 49 no.7:107-109 Jl 60. (MIRA 13:7)

1. Vostochnosibirskiy geologicheskiy institut Sibirskogo otdeleniya AN SSSR, Irkutsk. 2. Chlen-korrespondent AN SSSR (for Solonenko).

(Gobi Altai Mountains---Mounds)







BELICHENKO, Valentina Georgiyevna; KOMAROV, Yuriy Vasil'yevich; MUSIN, Yuriy Vasil'yevich; MURENOV, Pétr Mikhaylovich; CHERNOV, Yuriy Alekseyevich; FLORENSOV, N.A., otv.red.; SOLODOV, N.A., red.izd-va; NOVICHKOVA, N.D., tekhn.red.

[Outline of the geology and petrography of the southern margin of the Vitim Plateau (northwestern Transbaikalia)] Geologo-petrograficheskii ocherk iuzhnoi okrainy Vitimskogo ploskogor'ia (Severo-Zapadnoe Zabaikal'e). Moskva, Izd-vo Akad.nauk SSSR. 1962. 166 p. (Akademiia nauk SSSR. Sibirskoe otdelenie. Vostochno-Sibirskii geologicheskii institut. Trudy, no.8).

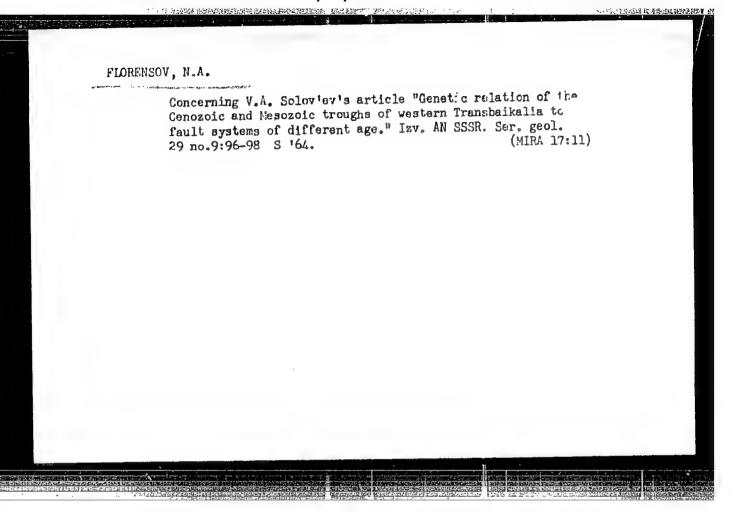
(MIRA 16:2)

(Vitim Plateau-Geology)

BALAKINA, L.M.; BULMASOV, A.P.; DUVZHIR, G.; YESKIN, A.S.; KURUSHIN, R.A.; LOGACHEV, N.A.; LUK'YANOV, A.V.; NATSAG-YUM, L.; SOLONENKO, V.P., prof.; TRESKOV, A.A.; FLOREISOV, N.A.; KHIL'KO, S.D.; SHMOTOV, A.P.; ARSEN'YEV, A.A., red. 4 zd-va; DOROKHINA, I.N., tekhn. red.

[Gobi Altai earthquake] Gobi-Altaiskoe zemletriasenie. Mo-skva, Izd-v Akad. nauk SSSR, 1963. 390 p. (MIRA 16:5)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Vostochno-Sibirskiy geologicheskiy institut. 2. Chlen-korrespondent Akademii nauk SSSR (for Florensov). (Gobi Altai-Earthquakes)



NAGIBINA, Marina Sergeyevna; FLORENSOV, N.A., otv.red.; PEYVE, A.V., glaynyy red.; MARKOV, M.S., red.; MENNFR, V.V., red.; TIMOFEYEV, P.P., red; ARSEN'YEV, A.A., red.izd-va; RYLINA., Yu.V., tekhn.red.

[Tectonics and igneous activity of the Mongolian-Okhotsk belt.]
Tektonika i magmatizm Mongolo-Okhotskogo poiasa. Moskva, 1963.
463 p. (Akademiia nauk SSSR. Geologicheskii institut. Trudy, no. 79).

(MIRA 17:2)

1. Chleny-korrespondenty AN SSSR (for Florensov, Peyve).

[Geomorphology of the bottom and shores of Luke Baikal]
Geomorfologiia dna Baikala i ego beregov. Moskva, Nauka, 1964. 142 p. (MIRA 17:12)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Limnologicheskiy institut.

LOGACHEV, N.A.; LOMONOSOVA, T.K.; KLIMANOVA, V.M.; FLORENSOV, N.A., otv. red.;

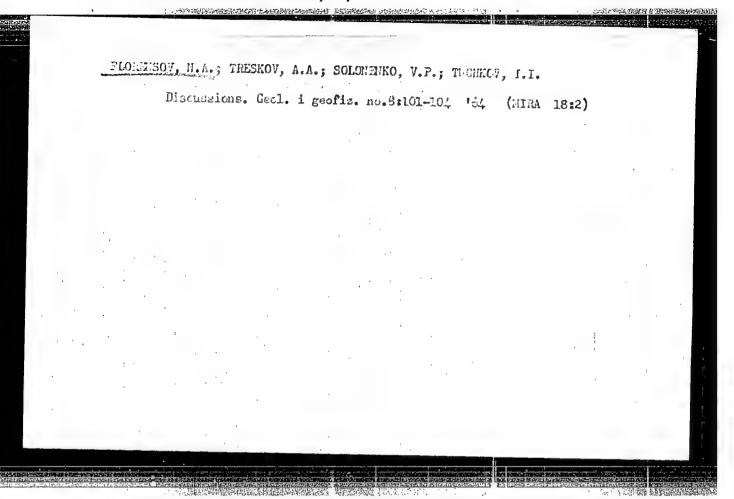
[Cenozoic sediments of the Irkutsk amphitheater] Kainozoiskie otlozheniia Irkutskogo amfiteatra. Moskva, Izd-vo "Nauka," 1964. 193 p. (MIRA 17:6)

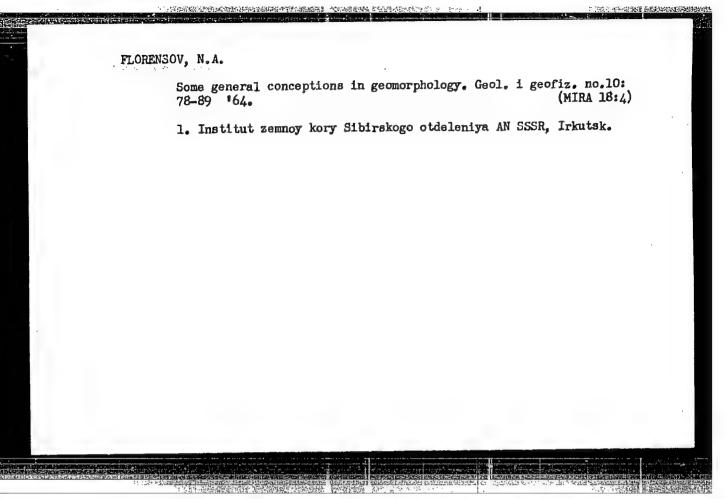
1. Chlen-korrespondent AN SSSR (for Florensov).

DIEROV, Vitaliy Yefimovich; FLORENSOV, N.A., nauchn. red.

[Geology of the central part of the Eastern Sayan
Mountains] Geologia tsentral'noi chasti Vostochnogo
Saiana. Moskva, Nedra, 1964. 333 p. (NIRA 18:1)

1. Chlen-korrespondent AN SSSR (for Florensov).

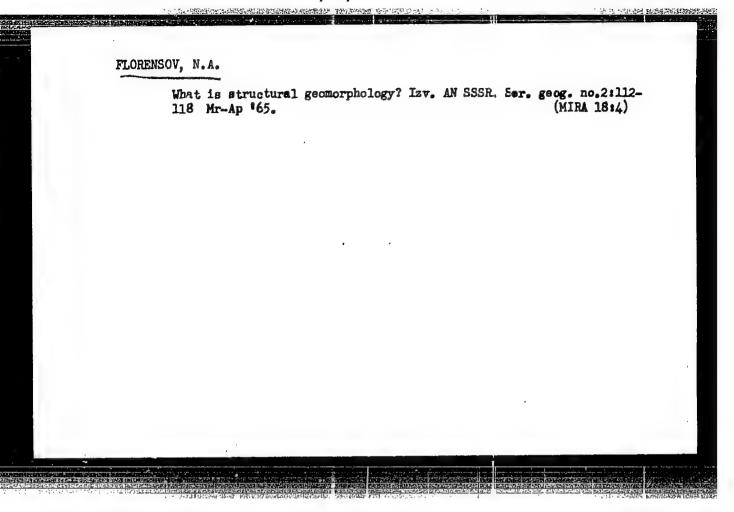


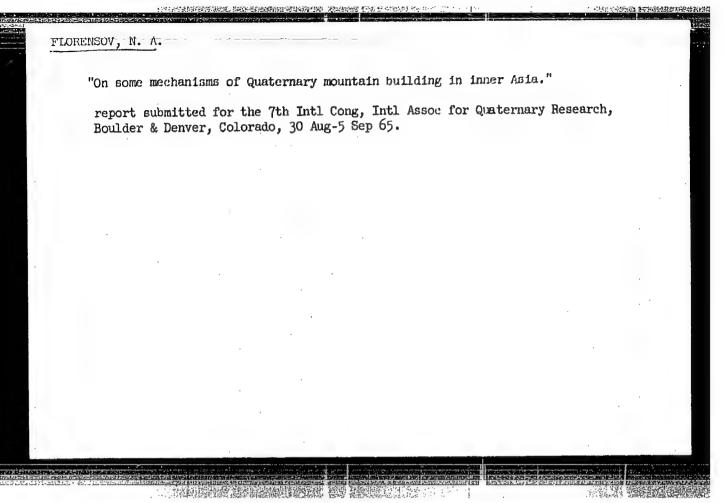


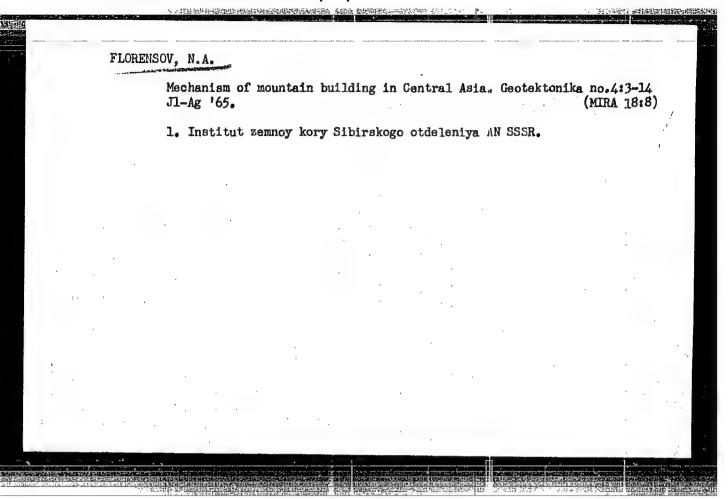
SIDORENKO, A.V., glav. red.; FLORENSOV, N.A., red.; RYASENKO, V.Te., soredaktor; ZUBAKEV, B.M., soredaktor

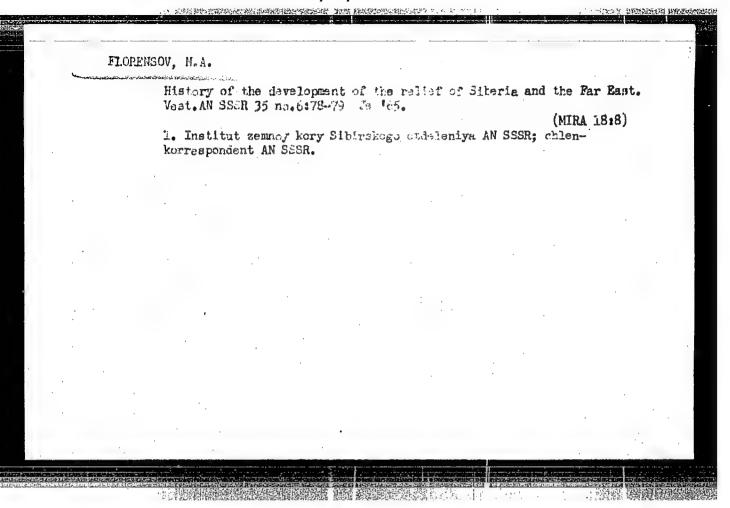
[Geology of the U.S.S.R.] Geologiia SSSR. Moskva, Nedra. Vol.35. Pt.l. 1964. 628 p. (h.IRA 18:1)

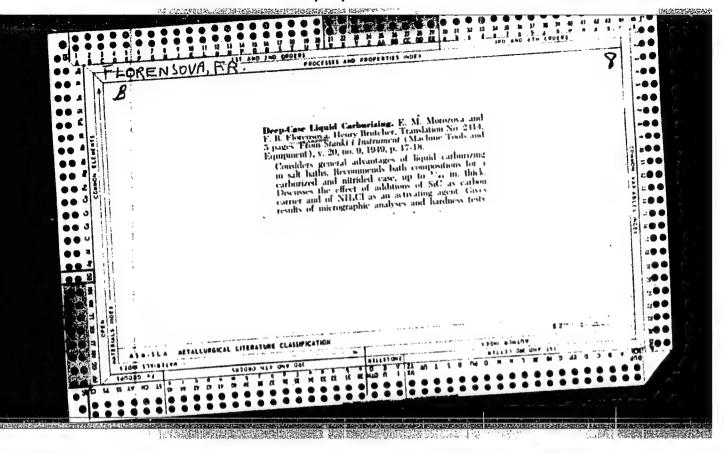
1. Glavnyy inzhener Buryatskogo geologicheskogo upravleniya (for Ryabenko). 2. Glavnyy geolog Buryatskogo geologicheskogo upravleniya (for Zubarev).

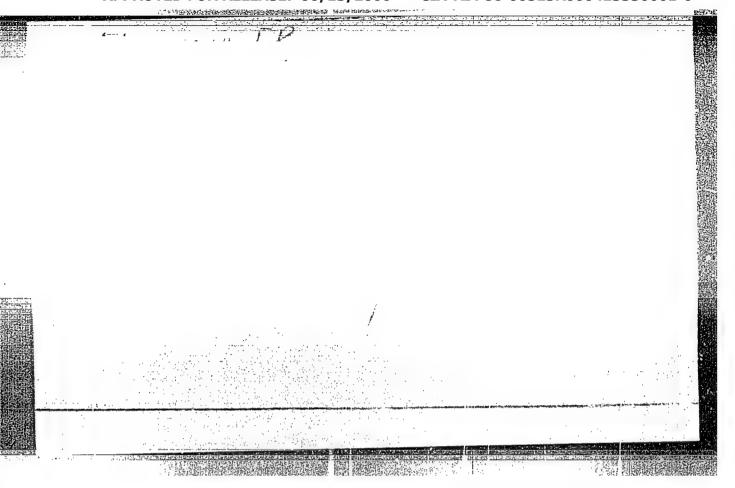












FLORENSOVA, F.K.

AUTHOR: Morozova, E.M. and Florensova, F.R. 121-2-16/20

TITLE: The use of liquid carburising for machine tool components. (Primenenie zhidkostnoy tsementatsii dlya detaley stankov)

PERIODICAL: "Stanki i Instrument" (Machine Tools and Tools), 1957, No.2, pp. 40 - 41 (U.S.S.R.)

ABSTRACT: Details are given of experience with liquid carburising in salt baths at the Stankonormal' plant in the case of hardening of such components as nuts, bolts and others. The process in a cyanide bath is discussed with details of the chemical reaction and temperatures employed. Carburised layers of 0.10 - 0.30 mm are most effectively obtained in such baths. For deeper layers, ENIMS has developed a bath consisting of 70-76% Na<sub>2</sub>CO<sub>3</sub>, 9 - 12% NaCl, 6 - 9% NH<sub>4</sub>Cl, and 9 - 10% SiC. The chemistry of the process in this bath is discussed. The presence of ammonia chloride removes the oxide film and facilitates carburisation. Moreover, the presence of nitrogen increases the diffusion of carbon and takes part in a cyanide reaction. The duration of soaking has an effect on the carbon content of the top layer after three hours at 870 C, the carbon/reaches 1 to 1.2%. Inquid carburising achieves a surface hardness of 61 - 64 Rockwell C. For medium carbon steels the bath temperature is about 830 C, for low carbon

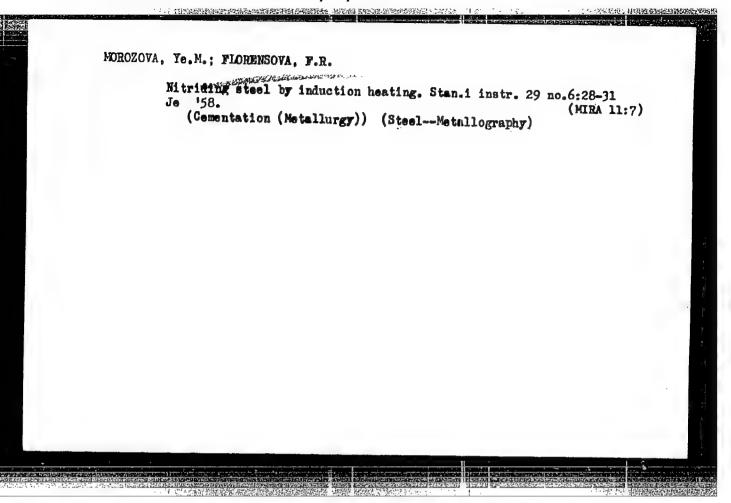
The use of liquid carburising for machine tool components. (Cont.) 121-2-16/20

steels about 880 C. The components are quenched immediately after the salt bath in water or oil according to the steel. Before immersion in the salt bath the components are pre-heated to 350 C. After the bath they are cleaned in hot water. Tempering at 200 C is recommended.

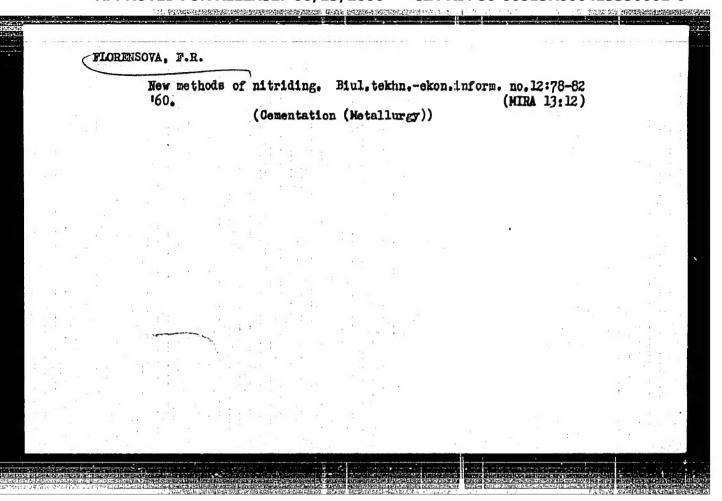
There are 5 graphs, 2 tables and 2 Slavic references.

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413330001-6"



5/810/62/000/000/005/013

AUTHOR: Florensova, F.R.

The nitriding of steel with high-frequency-current heating. TITLE:

Metallovedeniye i termicheskaya obrabotka; materialy konferentsii po SOURCE: metallovedeniyu i termicheskoy obrabotke, sust. v g. Odesse v 1960 g.

Moscow, Metallurgizdat, 1962, 199-210.

The paper reports the results of experimental work intended to over-TEXT: come one of the disadvantages of the otherwise highly-desirable nitriding process, namely, the long time requirements ( > 24 hrs) of the process and the need for special Al-alloyed steels which are difficult to make and to treat. A brief survey of not specifically identified Soviet, German, and American literature sources shows recent progress in the reduction of Al content in nitridable steels and in the nitriding and quench-hardening of relatively low-C steels. The present work investigates the application of HF currents to accelerate the nitriding process. Nitriding was performed on annealed technically pure Fe, the steels 38XMW A (38KhMYuA) and 40X (40Kh) and the stainless steels 2X13 (2Kh13) and 4X13 (4Kh13). In the nitriding equipment (cross-section shown), ammonia passes through a silicagel drier, a rheometer, and a ceramic tube containing the specimens, after which its pressure

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is measured in a manometer, its dissociation is measured in a dissociation meter, and the gas is finally discharged via a water trap. The ceramic tube is contained within an inductor fed by an electron-tube-type HF generator (300 kcps, 90 kw). The dissociation of the ammonia at 500° was 25%, at 600° 30-40%, and at 700° 70-75%. Effect of temperature (T): At 500 and 550° the amount of N absorbed was greater in the HF process than in furnace nitriding. At 650-700° the N absorption was about equal. Maximum hardness was obtained at T 500-550°; further increase in T evokes coagulation of the nitrides and, hence, reduction in hardness. Microstructural details of the HF-nitrided surface layer are described and tabulated. Effect of duration of nitriding: N penetration increases with time (1, 3, and 5 hrs), but the rate decreases. Little is to be gained beyond 5 hours. The variation of microhardness with thickness vs. time is shown graphically. In summary, nitriding at 500-550° for 3 hrs in HF heating achieves the same result in the steels tested as furnace nitriding for 24 hrs at 520°. Effect of current frequency: A frequency range from 8 to 300 kcps was investigated, but little or no effect was found. Nitriding of stainless steels 2Kh13 and 4Kh13: An optimal nitriding regime with HF heating consists in a 3-4-hr soaking at 550-580° and 30-35% dissociation. Layer thickness: 0.10-0.12 mm. The volumetric deformations resulting from nitriding are briefly discussed, and the elevated wear resistance of the nitrided layer is substantiated by experimental results. In summary, the effectiveness and

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process acceleration afforded by the HF-nitriding process is attributed to the dissociation of the ammonia in the immediate vicinity of the metallic surface only, also by the magnetostriction of the specimen by the HF magnetic field of the inductor, which may produce an accelerating action on the N diffusion in the metal. Local nitriding is made possible by the HF process, thereby reducing any deformations of the parts. Recommended process parameters for steels 38KhMYuA and 40 Kh: 500-550°, 18-20% dissociation; for technically pure Fe: 700°, 70-75%; for the stainless steels tested: 540-580°, 30-40%. Process duration, depending on the thickness of the nitrided layer required: 3-5 hrs. There are 12 figures, 2 tables, and no references.

ASSOCIATION: Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov (Experimental Scientific Research Institute for metal-cutting machine tools).